

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A system for processing asynchronous data, comprising:

a plurality of packeting modules configured to packet asynchronous data; and
a message composition module connected to said plurality of packeting modules,
wherein said message composition module is configured to compose a message and
send a request for a packet directly to at least one packeting module of said plurality of
packeting modules when said message composition module needs a packet, and
wherein said at least one packeting module is configured to stop packeting
asynchronous data, even if packeting of the asynchronous data is not completed, in response
to said request and to send to said message composition module a packet of asynchronous
data formed prior to receiving said request.

Claim 2 (Original): The system of Claim 1, wherein said message composition
module is configured to send said request to each of said plurality of packeting modules, and
wherein each packeting module of said plurality is configured to stop packeting asynchronous
data in response to said request and to send to said message composition module a packet of
asynchronous data formed prior to receiving said request.

Claim 3 (Original): The system of Claim 2, further comprising a battery connected to
said plurality of packeting modules, said at least one battery being configured to store said
asynchronous data.

Claim 4 (Original): The system of Claim 2, wherein said message composition module is configured to receive a plurality of packets from said plurality of packeting modules.

Claim 5 (Original): The system of Claim 4, wherein said message composition module is configured to receive said plurality of packets one after another in a predetermined order.

Claim 6 (Original): The system of Claim 4, wherein said message composition module is configured to compose a message comprising said plurality of packets.

Claim 7 (Original): The system of Claim 6, further comprising a formatting module connected to said message composition module and configured to format said message.

Claim 8 (Original): The system of Claim 7, further comprising an output module configured to transmit said message on a transmission line.

Claim 9 (Currently Amended): A system for transmitting asynchronous data packets, comprising:

means for packeting asynchronous data in a packeting module;

means for receiving a request, in the packeting module, directly from a message composition module when said message composition module needs a data packet;

means for interrupting said means for packeting in response to said request;

means for transmitting a plurality of packets, even if packeting of asynchronous data is not completed, each packet of said plurality being formed by said means for packeting prior to an interruption by said means for interrupting; and

means for composing a message comprising said plurality of packets.

Claim 10 (Original): The system of Claim 9, further comprising means for formatting said message into a formatted message.

Claim 11 (Original): The system of Claim 10, further comprising means for transmitting said formatted message.

Claim 12 (Previously Presented): The system of Claim 11, wherein said packeting of said asynchronous data is performed during a packeting time, said packeting time being greater than half of a total time for packeting said asynchronous data and for transmitting said message.

Claim 13 (Previously Presented): The system of Claim 12, wherein said total time duration is less than 100 ms, said packeting time duration is approximately equal to said total time duration, and a time for transmitting said message is negligible compared to said packeting time duration.

Claim 14 (Original): The system of Claim 13, wherein said packeting time is equal to a cycle time for a transmission line over which said formatted message is transmitted.

Claim 15 (Cancelled).

Claim 16 (Currently Amended): A system for transmitting a packet of asynchronous data, comprising:

means for packeting said asynchronous data into a packet during a packeting time;

means for requesting said packet directly from said means for packeting when a message composition module needs said packet;

means for stopping said means for packeting in response to a request from said means for requesting;

means for composing a message comprising said packet; and

means for transmitting said message during a message transmitting time, even if packeting of said asynchronous data is not completed,

wherein said packeting time is greater than said message transmitting time.

Claim 17 (Original): The system of Claim 16, further comprising a transmission line over which said message is transmitted by said means for transmitting, said transmission line having a cycle time, and wherein said means for requesting requests said packet so that said packeting time is equal to said cycle time.

Claim 18 (Cancelled).

Claim 19 (Currently Amended): The system of Claim 17 ~~18~~, wherein a said total time for packeting said asynchronous data and transmitting said data is less than 100 ms and said message transmitting time is so short compared to said packeting time that said total time is approximately equal to said packeting time.

Claim 20 (Previously Presented): The system of Claim 1, wherein the message composition module recovers packets of asynchronous data created by the plurality of packeting modules one after the other in a predefined order.

Claim 21 (Previously Presented): The system of Claim 1, wherein said message includes a number of data in said packet of asynchronous data equal to or less than 11, and said message includes one wrapping.

Claim 22 (Previously Presented): The system of Claim 1, wherein said packeting module is further configured to sort and enhance data.

Claim 23 (Previously Presented): The system of Claim 9, wherein said means for transmitting said plurality of packets transmits said data packet as soon as the message composition module requests said data packet.

Claim 24 (Previously Presented): The system of Claim 9, wherein said means for interrupting interrupts said packeting as soon as the packeting module receives the request from the message composition module, and the means for transmitting transmits an incomplete data packet, being composed at a time of said interrupting, to the message composition module after said packeting is interrupted, and further comprising means for starting a next packeting operation composing a next data packet as soon as the incomplete packet is transmitted.

Claim 25 (Previously Presented): The system of Claim 1, wherein the message composition module needs said packet after the message composition module has transmitted

a previous data packet and the message composition module is ready to start packeting asynchronous data again.